

Application No. 10/728,344
Amdt. dated December 19, 2005
Response to Office Action of July 21, 2005

REMARKS/ARGUMENTS

Applicant requests a two-month extension of time to respond the outstanding Office Action. The Commissioner is hereby authorized to charge the two-month extension of time fee in the amount of \$225.00, and any excess claim fees, or credit any overpayment to Deposit Account No. 502557. Applicant is a Small Entity.

Reconsideration is hereby requested.

Responsive to the rejection under 35 USC 112, which appears at Page 2, ¶¶1-2 of the Official Action, Applicant has cancelled original Claim 7 in favor of new Claim 22 to affirmatively recite that the phrase "respective error values" which appears in ¶(i) of Claim 7 is associated with the command values of the comparing means recited in ¶(g) of Claim 6. Antecedent basis therefore is apparent in Col. 4, ¶0059-0060 of the published specification of this application, namely, U.S. 20050115454A, and in Fig. 9 of the Drawings. More specifically, said ¶0059-60 explain error values 142p associated with the propulsion force and error values 142l associated with the levitation force.

Claims 1-3 have been rejected under 35 USC 103(a) as unpatentable over Li (U.S. 5,936,373) in view of Säufferer (U.S. 3,934,183). Therein, the Examiner

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asserts that Li discloses "a multi-phase switch translation system including a first LSRM having a stator and translator configured, positioned and proportioned for electromagnetic engagement with each other, the system comprising means for selectable application of at least one phase of a multi-phase DC excitation to said LSRM as disclosed in Col. 4, Lines 13-17 to produce a longitudinal and normal force between the stator and translator." Applicant however respectfully urges that neither said indicated portion (Col. 4, Lines 13-17) of Li, nor any other portion of the Li patent makes any reference to the terms translation or translator. Applicant has conducted a key word search of the Li patent and cannot find either of these terms therein. Also, the terms linear and longitudinal do not appear at all in Li. Further, a key word search directed to the term normal indicates the appearance of this term only at Col. 3, Line 49, and this in a context unrelated to Applicant's use of the term as a synonym for levitation. Accordingly, the teaching of Li has no relationship to the technology of linear reluctance, translation or the generation of normal forces between a stator and translator to generate a normal or levitation force. Thus, Li does not teach a linear-switched reluctance machine having any relation or capability relative to translation or levitation. In Li, the nearest analog to Applicant's translator is the rotor thereof. As such, the teaching of Li is essentially that of a variable speed reluctance motor, the object of which is the production of torque. Applicant's system does not produce torque.

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In electromagnetic terms, the system of Li is characterized by a high degree of mutual inductance, and mutual inductance profiles, between the rotor and stator and the windings thereof. In fact, the phrases "mutual inductance" and "mutual inductance profiles" appear 18 times in the specification of Yi but do not appear at all in the specification or claims of Applicant. Accordingly, although not necessary to patentable define over Yi, Applicant has cancelled original Claims 1 and 2 in favor of new independent Claim 21 which affirmatively recites that the stator and the translator are configured, positioned and proportioned for an electromagnetic engagement which is substantially not mutually inductive.

To yet further define over Yi, in said new independent Claim 21, Applicant has recited the limitation of original Claim 2 as ¶(d) of new Claim 21, in the form of the following language:

"means for independent control of said DC excitation of said application means (b) and of said multi-phase excitation of said application means (c) above."

Further, in said new independent claim, Applicant has corrected a typographical error which existed in original Claim 1, Line 8 thereof, which had used the language "to thereby produce a longitudinal and normal force between said stator and said translator." As may be readily confirmed by a reading of the Abstract and Summary of the Invention, this phrase in Claim 1 should have read

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"to thereby produce a longitudinal propulsive force between said stator and translator." New Claim 21 corrects this typographical error.

Claims 3 and 4 have been amended such that each reference to Claim 2 therein is now a reference to Claim 21.

Claim 7 has been amended, as noted above, in the form of new Claim 22. As such, original Claims 12, 14, and 18 are now been amended to depend from said new Claim 22.

Applicant now submits that since the teaching reference of the rejection of Claims 1-4, namely, the reference to Li, must fall for the reasons set forth above, the combination of Li with any secondary reference cannot stand as a basis of rejection of the claims, at least as now amended. More particular, Säufferer has no teaching of multi-phase control of longitudinal and normal forces between a stator and translator. In fact the term normal does not appear in the reference to Säufferer.

Applicant urges that Claim 4 is allowable by reason of its dependency from an allowable independent Claim (Claim 21) and that Claim 5 is allowable because of its dependency from an allowable claim (Claim 4). Claims 6 and 8 are allowable by reason of their dependence from an allowable claim (Claim 5),

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as are Claims 9 and 10. Zelman, as a teaching of means for comparing currents to command values, does not remedy the deficiency of the higher order references, namely, Li and Säufferer which, for those reasons set forth above, have no relation to Applicant's invention. That is, Applicant's system does not produce any torque nor does mutual inductance exist between the elements thereof.

Applicant appreciates the indication of allowable subject matter set forth at Page 6, ¶8-9 of the Official Action. However, for those reasons urged above, the claims now of record clearly define over all art of record, however combined.

All objections and rejections of record have been satisfactorily responded to and, as such, the early allowance of this application is urged.

Respectfully submitted,
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